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Patent Plaques



JP2086121A2: DEVICE FOR VAPOR GROWTH OF COMPOUND SEMICONDUCTOR

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Country: **JP Japan**

Kind:

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Issued/Filed Dates: **March 27, 1990 / Sept. 22, 1988**

Application Number: **JP1988000238002**

IPC Class: **H01L 21/205;**

Abstract: **Purpose:** To prevent fluid gallium from flowing out from a gallium source boat by a method wherein a cooling tube for circulating a cooling liquid is provided in the gallium source boat or in the vicinity of the gallium source boat and the fluid gallium, which is heated and fused at the time of growth of a compound semiconductor crystal, is cooled and solidified by the cooling tube after the growth.

Constitution: If gallium filled in a source boat 12 is once used for a growth of a crystal, the gallium is turned into a fluid as being heated and even though the growth finishes and the temperature in a reaction tube 10 drops to a room temperature, the fluid gallium is not solidified and is brought in a state of supercooling. Then, after it is confirmed that the temperature in the tube 10 is 30°C or lower, valves 34 and 35 are both opened, a change-over valve 36 is changed over to the side of a cooling tube and a cooling medium is circulated in the cooling tube 30. By the circulation of this cooling medium, the fluid gallium in the boat 12 is rapidly cooled and is solidified. After the solidification of the fluid gallium, the valves 34 and 35 are closed and if the valve 36 is changed over to the side of an exhaust piping, the fluid gallium is brought in a normal growth state. Thereby, as the fluid gallium in the state of a room temperature can be solidified forcedly, the fluid gallium can be prevented from flowing out from the source boat by an earthquake and the like.

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Other Abstract Info: **DERABS C90-136721 DERC90-136721**

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Foreign References: (No patents reference this one)



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